



The  
Patent  
Office

PHB 34758

U.S.A.

II - II



INVESTOR IN PEOPLE

The Patent Office  
Concept House  
Cardiff Road  
Newport  
South Wales  
NP10 8QQ

the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has re-registered under the Companies Act 1985 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it is so re-registered.

In accordance with the rules, the words "public limited company" may be replaced by p.l.c., plc, P.L.C. or PLC.

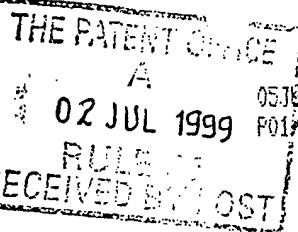
Re-registration under the Companies Act does not constitute a new legal entity but merely subjects the company to certain additional company law rules.

Signed

Dated

29 DEC 1990

**The  
Patent  
Office**



1/77

05 JUL 99 E459483-4 D02879  
P017700 0.00 - 9915571.5

**Request for grant of a patent**

*(See notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)*

**The Patent Office**  
Cardiff Road  
Newport  
Gwent NP9 1RH

1. Your reference **PHB34358**

2. Patent application number  
*(The Patent Office will fill in this part)*

**9915571.5**

**02 JUL 1999**

3. Full name, address and postcode of the or of each applicant *(underline all surnames)*

KONINKLIJKE PHILIPS ELECTRONICS N.V.  
GROENEWOUDSEWEG 1  
5621 BA EINDHOVEN  
THE NETHERLANDS

Patents ADP Number *(if you know it)*

If the applicant is a corporate body, give the country/state of its incorporation

THE NETHERLANDS

1419294001

4. Title of the invention **RADIO COMMUNICATION SYSTEM**

5. Name of your agent *(if you have one)*  
"Address for service" in the United Kingdom to which all correspondence should be sent *(including the postcode)*

Kevin James SCOTT  
Philips Corporate Intellectual Property  
Cross Oak Lane  
Redhill  
Surrey RH1 5HA

Patents ADP number *(if you know it)*

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and *(if you know it)* the or each application number

Country	Priority Application number <i>(if you know it)</i>	Date of filing <i>(day/month/year)</i>
GB	9912289.7	26.05.99

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application	Date of filing <i>(day/month/year)</i>
-------------------------------	---

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer "Yes" if:*

YES

- a) *any applicant named in part 3 is not an inventor, or*
- b) *there is an inventor who is not named as an applicant, or*
- c) *any named applicant is a corporate body.*

*See note (d))*

9. Enter the number of sheets for any of the following items you are filing with this form.  
Do not count copies of the same document.

Continuation sheets of this form

Description	
Claims(s)	9(x2)
Abstract	4(x2)
Drawings	1(x2)
	2(x2)

PSM

10. If you are also filing any of the following, state how many against each item:

Priority Documents

Translations of priority documents

Statement of inventorship and right  
to grant of a patent (*Patents Form 7/77*)

Request for preliminary examination and  
search (*Patents Form 9/77*)

Request for substantive examination  
(*Patents Form 10/77*)

Any other documents

(*Please specify*)

11.

I/We request the grant of a patent on the basis of this application.

Signature

 Date 1<sup>st</sup> July 1999

12. Name and daytime telephone number of  
person to contact in the United Kingdom

01293 815281

(Kevin J. Scott)

#### Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

#### Notes

- 1) If you need help to fill in this form or you have any questions, please contact the Patent Office on 0645 500505.
- 2) Write your answers in capital letters using black ink or you may type them.
- 3) If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.
- 4) If you have answered "Yes" Patents Form 7/77 will need to be filed.
- 5) Once you have filled in the form you must remember to sign and date it.
- 6) For details of the fee and ways to pay please contact the Patent Office.

## DESCRIPTION

## RADIO COMMUNICATION SYSTEM

5

The present invention relates to a radio communication system and further relates to a secondary station for use in such a system and to a method of operating such a system. While the present specification describes a system with particular reference to the emerging Universal Mobile Telecommunication System (UMTS), it is to be understood that such techniques are equally applicable to use in other mobile radio systems.

10

There are two basic types of communication required between a Base Station (BS) and a Mobile Station (MS) in a radio communication system. The first is user traffic, for example speech or packet data. The second is control information, required to set and monitor various parameters of the transmission channel to enable the BS and MS to exchange the required user traffic.

15

In many communication systems one of the functions of the control information is to enable power control. Power control of signals transmitted to the BS from a MS is required so that the BS receives signals from different MS at approximately the same power level, while minimising the transmission power required by each MS. Power control of signals transmitted by the BS to a MS is required so that the MS receives signals from the BS with a low error rate while minimising transmission power, to reduce interference with other cells and radio systems. In a two-way radio communication system power control may be operated in a closed or open loop manner. In a closed loop system the MS determines the required changes in the power of transmissions from the BS and signals these changes to the BS, and vice versa. In an open loop system, which may be used in a TDD system, the MS measures the received signal from the BS and uses this measurement to determine the required changes in the transmission power.